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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Welty
Serial No.: 10/007,021
Filed: 11/05/2001
Group Art Unit: 1775
Examiner: Piziali, Andrew T.
Title: COATED ARTICLE

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Subsequent to the filing of the Notice of Appeal on February 18, 2005, Appellant hereby submits its brief. The Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds, P.C. \$500 for the appeal brief fee. If any additional fees are due, the Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds, P.C. for any additional fees or credit the account for any overpayment.

REAL PARTY IN INTEREST

The real party in interest is Vapor Technologies, Inc., the assignee of the entire right and interest in this Application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 22-53 stand finally rejected under 103(a), and Claims 1-21 have been cancelled.

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270-3038-U**STATUS OF AMENDMENTS**

All amendments have been entered.

SUMMARY OF THE INVENTION

The present invention relates to an article having on at least a portion of a surface a coating consisting essentially of a nickel layer (page 4, line 4 to page 7, line 4 of the specification) and a strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy that directly contacts the nickel layer (page 7, line 5 to page 8, line 22 of the specification). The coating also includes an uncoated outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound that directly contacts the strike layer (page 8, line 23 to page 19 of the specification and shown in Figures 4-6). This basic structure is set forth in claims 22 and 32.

Claims 39 and 43, which depend on claims 22 and 32, respectively, add that the article is a doorknob (page 1, line 8 of the specification).

ISSUES

- A. Arc Claims 22-53 properly rejected under 35 U.S.C. 102(e) based on Foster (U.S. Patent No. 5,879,532)?
- B. Are Claims 39 and 43 properly rejected under 35 U.S.C. 103(a) based on Foster in view of Fink (U.S. Patent No. 5,879,532)?

PATENTABILITY ARGUMENTS

A. **The rejection of Claims 22-53 under 35 U.S.C. 102(e) is improper.**

The Examiner finally rejected Claims 22-52 under 35 U.S.C. §102(e) as being anticipated by Foster. The Examiner stated that Foster discloses an article having a nickel layer, a strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy, and an outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound, and the claimed invention is anticipated. Appellant respectfully disagrees.

The present invention is patentable and strikingly different from Foster. As described by the claims, the present invention provides an article having on at least a portion of a surface a coating including a nickel layer, a strike layer consisting essentially of zirconium, titanium or

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zirconium-titanium alloy that directly contacts the nickel layer, and an uncoated outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound that directly contacts the strike layer. [See Claim 22]. Claims 22-53 all share this same or similar feature. [See Claims 22-53].

The claimed invention is not anticipated by Foster. Foster does not disclose an article including a nickel layer, a strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy (which is a refractory metal or a refractory metal alloy) that directly contacts the nickel layer, and an uncoated outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound (which is a refractory metal compound or a refractory metal alloy compound) that directly contacts the strike layer as claimed. Foster discloses an article including a layer of nickel 14 or 16, a chrome layer 20 and a layer 22 of refractory metal or refractory metal alloy that directly contacts the chrome layer 20. A layer 28 or 32 of refractory metal compound or refractory metal alloy compound directly contacts the layer 22 of refractory metal or refractory metal alloy. The layer 28 or 32 of refractory metal compound or refractory metal alloy compound of Foster that directly contacts the layer 22 of refractory metal or refractory metal alloy is not uncoated as claimed. Instead, the layer 28 or 32 of refractory metal compound or refractory metal alloy compound are coated with overlying layers, as described below.

In the example shown in Figures 4 and 6 of Foster, the layer 22 of refractory metal or refractory metal alloy directly contacts an underlying electroplated layer. A layer 28 of refractory metal compound or refractory metal alloy compound of a sandwich layer 26 directly contacts the layer 22 of refractory metal or refractory metal alloy. However, the layer 28 of refractory metal compound or refractory metal alloy compound is not uncoated as claimed. A layer 30 of refractory metal or refractory metal alloy is applied on the layer 28 of refractory metal compound or refractory metal alloy compound. More alternating layers 28 of refractory metal compound or refractory metal alloy compound and layers 30 of refractory metal or refractory metal alloy can be applied to form the sandwich layer 26. A layer 34 of the reaction products of refractory metal or refractory metal alloy with oxygen and nitrogen is then applied on the sandwich layer 26. Therefore, the layer 28 of refractory metal compound or refractory metal alloy compound is not uncoated as claimed.

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Additionally, the claimed invention is not anticipated by the embodiment shown in Figure 5 of Foster. In Figure 5, the layer 22 of refractory metal or refractory metal alloy directly contacts an underlying electroplated layer. A layer 32 of refractory metal compound or refractory metal alloy compound directly contacts the layer 22 of refractory metal or refractory metal alloy. The layer 32 of refractory metal compound or refractory metal alloy compound is then coated with a layer 36 of refractory metal oxide or refractory metal alloy oxide. Therefore, the layer 32 of refractory metal compound or refractory metal alloy compound is not uncoated as claimed by Appellant because the layer 36 of refractory metal oxide or refractory metal alloy oxide is over the layer 32 of refractory metal compound or refractory metal alloy compound. The claimed invention is not anticipated by Foster, and Appellant respectfully requests that the rejection be withdrawn.

The Examiner states that the inclusion of the layer 30 refractory metal or refractory metal alloy (of the sandwich layer 26), the layer 34 of the reaction products of refractory metal or refractory metal alloy with oxygen and nitrogen, and the layer 36 of metal oxide are all different "embodiments" and can be optionally added to Foster. The Examiner states that the invention disclosed by Foster, without the additional layers, read on the current claims. However, all the "embodiments" of Foster include at least one layer 30, 34 or 36 that overlies the layer 28 of 32 refractory metal compound or refractory metal alloy compound. None of the embodiments of Foster disclose that the layer 28 or 32 of refractory metal compound or refractory metal alloy compound is uncoated as claimed. Therefore, Foster does not disclose the claimed invention.

Additionally, Foster discloses that a layer of chrome 20 is located under the layer 22 of refractory metal or refractory metal alloy. The claimed invention recites that the strike layer of zirconium, titanium or zirconium-titanium alloy (refractory metal or refractory metal alloy) directly contacts the layer of nickel. In Foster, it is not possible for the layer 22 of refractory metal or refractory metal alloy to directly contact the nickel layers 14 and 16 because of the presence of the chrome layer 20.

Even taking the Examiner's interpretation that the chrome layer 20 is not needed in Foster, Foster still does not disclose that the layer 28 or 32 of refractory metal compound or refractory metal alloy compound that directly contacts the layer 22 of refractory metal or refractory metal alloy is uncoated as claimed. The claimed invention is not anticipated by Foster, and Appellant respectfully requests that the rejection be withdrawn.

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270-3038-U**B. The rejection of Claims 39 and 43 under 35 U.S.C. 103(a) is improper.**

Claims 39 and 43 stand rejected under 35 USC 103(a) as being obvious over Foster in view of Fink (U.S. Patent No. 5,759,677). The Examiner admits that Foster does not disclose a doorknob. The Examiner states it would be obvious to employ the coating of Foster in a doorknob because of Fink. Appellant respectfully disagrees.

The claimed invention is not obvious. Claims 39 and 43 depend on patentable independent claims 22 and 32, respectively, and are allowable for the reasons set forth above. Adding Fink to Foster still does not render Appellant's claims obvious because neither reference teaches an uncoated outer layer consisting essentially of zirconium compound, titanium compound, and zirconium-titanium alloy compound that directly contacts a strike layer consisting essentially of zirconium, titanium, or zirconium-titanium alloy that directly contacts a nickel layer as claimed. Foster does not disclose these features. Nothing in Foster teaches using a coating on door knobs. Therefore, even when employing the coating of Foster on the doorknob of Fink, the combination of the references does not teach, suggest or disclose the claimed invention. The claimed invention is not obvious, and Appellant respectfully requests that the rejection be withdrawn.

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant respectfully requests such an action.

Respectfully Submitted,

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Dated: April 1, 2005

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CERTIFICATE OF FACSIMILE

I hereby certify that this appeal brief is being facsimile transmitted to the United States Patent and Trademark Office, (703) 872-9306 on April 1, 2005.



Amy Spaulding

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CLAIMS APPENDIX

22. An article having on at least a portion of a surface a coating consisting essentially of, in order:
- a nickel layer;
 - a strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy directly contacting said nickel layer; and
 - an outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound directly contacting said strike layer, and said outer layer is uncoated.
23. The article of claim 22 wherein said compound is selected from carbides, oxides, nitrides and carbonitrides.
24. The article of claim 23 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound consists essentially of zirconium compound or zirconium-titanium alloy compound.
25. The article of claim 24 wherein said compound is nitrides.
26. The article of claim 24 wherein said strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy consists essentially of zirconium or zirconium-titanium alloy.
27. The article of claim 25 wherein said strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy consists essentially of zirconium or zirconium-titanium alloy.
28. The article of claim 22, wherein the article is copper, steel, brass, zinc, aluminum or nickel.
29. The article of claim 22, wherein the article is aluminum or zinc.

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30. The article of claim 22, wherein said strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy directly contacting said nickel layer has a thickness between 0.25 millionths of an inch and 50 millionths of an inch.

31. The article of claim 22, wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound has a thickness between 0.1 millionths of an inch and 30 millionths of an inch.

32. An article having a coating on at least a portion of a surface of said article, said article comprising:

a substrate consisting essentially of zinc or aluminum;

a nickel layer;

a strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy directly contacting said nickel layer and having a thickness less than 15 millionths of an inch; and

an outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound directly contacting said strike layer, and said outer layer is uncoated.

33. The article of claim 32 wherein said compound is selected from carbides, oxides, nitrides and carbonitrides.

34. The article of claim 33 wherein said outer layer consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound consists essentially of zirconium compound or zirconium-titanium alloy compound.

35. The article of claim 34 wherein said compound is nitrides.

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36. The article of claim 34 wherein said strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy consists essentially of zirconium or zirconium-titanium alloy.

37. The article of claim 35 wherein said strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy consists essentially of zirconium or zirconium-titanium alloy.

38. The article of claim 32, wherein the article is a faucet.

39. The article of claim 32, wherein the article is a doorknob.

40. The article of claim 32 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound has a thickness between 0.1 millionths of an inch and 30 millionths of an inch.

41. The article of claim 32 wherein said strike layer has a thickness greater than 0.25 millionths of an inch.

42. The article of claim 22 wherein the article is a faucet.

43. The article of claim 22 wherein the article is a doorknob.

44. The article of claim 24 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound consists essentially of zirconium-titanium alloy compound.

45. The article of claim 22 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound consists essentially of titanium compound.

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46. The article of claim 23 wherein said compound is oxides.
47. The article of claim 22 wherein said nickel layer directly contacts the surface of the article.
48. The article of claim 34 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound consists essentially of zirconium-titanium alloy compound.
49. The article of claim 32 wherein said strike layer consisting essentially of zirconium, titanium or zirconium-titanium alloy consists essentially of zirconium or zirconium-titanium alloy.
50. The article of claim 49 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound consists essentially of zirconium compound or zirconium-titanium alloy compound.
51. The article of claim 32 wherein said outer layer consisting essentially of zirconium compound, titanium compound or zirconium-titanium alloy compound consists essentially of titanium compound.
52. The article of claim 33 wherein said compound is oxides.
53. The article of claim 32 wherein said nickel layer directly contacts the substrate.